

For 4-13 years old 适合 4 至 13 岁学生



Project X

ECA Program

HONG KONG'S FIRST 全港第一

STEAM X Public Speaking Accelerated Programme

STEAM X 公开演讲课程

Build Tomorrow's Leaders

装备关键能力，培育未来领袖

Structured Curriculum in STEAM, AI & Public Speaking

STEAM、人工智能与公开演讲的系统化课程设计

THINK like a SCIENTIST

BUILD like an ENGINEER

PITCH like a CEO

Level 1

Level 1-5
课程级别 1-5

Level 5



Scan the code to watch curriculum philosophy & logic
扫码观看课程设置理念与逻辑



Awards
获国际奖项认可



Media Coverage
媒体报道



4 Future-Ready Modules | 5 Progressive Levels

四大领域 | 五级进阶课程设计



Coming soon
即將推出，敬請期待！

ProjectX

Science & Engineering

Tech, Coding & Robotics

AI & Entrepreneurship

Public Speaking & Presentation

Level 5
(Age
11-13)



Science Innovations



Research-ready innovator — combines science + engineering to create a refined, high-performing prototype and show real-world impact.



Python Product Builder



Product builder — creates a market-ready prototype with Python + SBC, validates it, and pitches its real value.



AI Product Launch Alibaba Cloud Certified

Tech CEO in training — Launch a real AI product in Python, present like a tech CEO, and earn an Alibaba Cloud certificate.



Tech CEO Product Keynote

Stage-ready launcher (3 minutes) — delivers a launch-style pitch with results, limits, and sharp Q&A.

Level 4
(Age
9-11)



Science Engineering



Problem solver — applies science ideas to design and build a working solution to a real-world problem.



Micro:bit Inventor

Real-world inventor — turns ideas into working sensor-based solutions, then tests, fixes, and demos them confidently.



AI Builder + Brand Owner



Product & brand builder — Build more advanced GenAI products and learn branding, marketing, and how to run a sustainable business.



Tech Business Pitch

Pitch-ready presenter (3 minutes) — tells a problem-solution-value story with a live demo.

Level 3
(Age
7-9)



Science Research

Evidence thinker — collects results, spots patterns, and backs ideas with data & analytics.



Scratch Creator



Game & animation maker — builds fun interactive projects and learns core coding logic (loops, rules, cause-and-effect).



AI Creator + Biz Starter



Young creator-founder — Create GenAI-powered storybooks, videos and simple games and learn the basics of starting a small business.



Research Presentation

Evidence presenter (2 minutes) — uses data, analytics and product demo to persuade with proof.

Level 2
(Age
5-7)



Science Mindset

Young scientist — asks a question, makes a prediction, tests fairly, and shares a clear conclusion.



Science Presentation

Clear explainer (1.5 minutes) — delivers a structured talk with a labelled prototype and a strong takeaway.

Level 1
(Age
4-5)



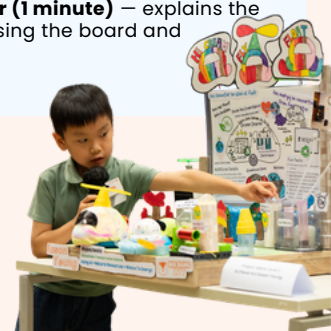
Science Exploration

Hands-on explorer — completes simple experiments and explains what happened with confidence.



Show & Tell

Confident sharer (1 minute) — explains the project clearly using the board and prototype.



Our Signature STEAM Approach 我们的标志性 STEAM 教学法



The Proven Framework Behind Future-Ready Skills Development 成就面向未来核心技能的实证教学框架

Science & Engineering

科学与工程



Subject Pillars 学科范畴

Physics
物理

Ecology
生态学

Chemistry
化学

Astronomy
天文学

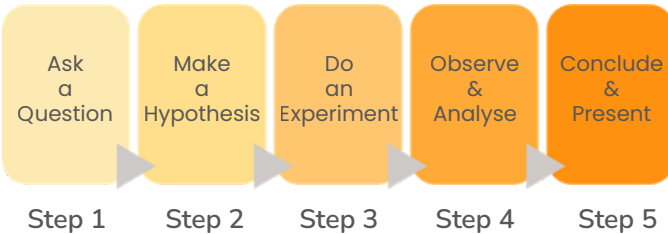
Biology
生物

Engineering
工程学

Scientific Thinking Framework

5-Step Process

科学思维五步学习法



Technology & AI

科技与人工智能



Subject Pillars 学科范畴

Coding
编程

3D Printing
3D 打印

Robotics
机器人技术

Website
网页开发

Game Design
游戏设计

Mobile App
手机应用程序设计

Tech Pitching Framework

P.R.O.V.E

科技简报框架：PROVE 五步法



AI & Entrepreneurship

AI 与创业



Subject Pillars 学科范畴

AI & Ethics
AI 与道德

Cloud Computing
云端运算

Business Planning
商业策划

Design Thinking
设计思维

AI-Human Co-creation Framework

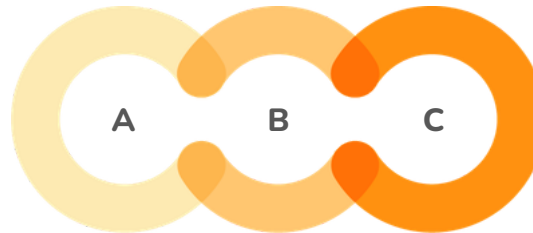
S.P.A.R.K

AI 协作五步法 - SPARK :



Presentation Framework

ABC



A - Articulation

B - Body Language

C - Confidence

Learning Outcome 学习成果

Scientific Presentation
科学演示训练

Science Fair
参与科学展览活动

Learning Outcome 学习成果

Tech Pitching
科技创业简报训练

Product Demo Day
产品展示日

Learning Outcome 学习成果

CEO Keynote Speech
CEO 主题演讲训练

AI Product Launch
AI 产品发布展示

Big Bang Academy, an accredited tech-enabled education startup founded in 2020, fosters passionate, self-directed learners. We have positively influenced over 35,000 students aged 3-16 at secondary schools, primary schools and kindergarten across the Greater Bay Area and Hong Kong. Our Co-Founders, Sarah Tong and Nixon Chan—both alumni of the University of Cambridge—were honoured as Forbes 30 Under 30 Asia 2022, solidifying our commitment to education and innovation.

Big Bang Academy 是一所于2020年成立的认证教育科技初创企业，致力于培养充满热情、自主学习的年轻探索者。我们已在大湾区及香港的中小学、幼儿园中，积极影响了超过35,000名3至16岁的学生。联合创始人Sarah Tong与Nixon Chan均毕业于剑桥大学，并于2022年荣膺《福布斯》亚洲“30位30岁以下精英”，这进一步印证了我们对教育与创新事业的坚定投入。

FIND
YOUR
SPARK

WITH OVER 35,000 STUDENTS REACHED AND 150+ PARTNER SCHOOLS AND CORPORATE

已惠及超35,000名学生，并与150多所学校和机构达成合作。

We help every child **Find Their Spark** — their life-defining moment of passion and curiosity.
我们助力每个孩子“发现他们的火花”——那定义他们人生的热爱与好奇瞬间。

Our Academic Advisors and Industry Mentors 我们的学术顾问与行业导师



Sarah Tong

- **Bachelor of Science -Engineering (University of Cambridge)**
工程学学士 (剑桥大学)
- **Master of Engineering (University of Cambridge)**
工程学硕士 (剑桥大学)
- **Forbes 30 Under 30 Asia 2022**
2022 年福布斯亚洲 30 位 30 岁以下杰出人物
- **Global Women Asia in STEM 2024**
2024 年 STEM 领域全球亚洲女性



Nixon Chan

- **Master of Art - Natural Science (University of Cambridge)**
自然科学硕士 (剑桥大学)
- **Master of Science - Electronic Commerce & Internet Computing (The University of Hong Kong)**
电子商务及互联网计算硕士 (香港大学)
- **Forbes 30 Under 30 Asia 2022**
2022 年福布斯亚洲 30 位 30 岁以下杰出人物
- **Taught more than 2,000 students**
教授超过2,000名学生

Our School and Corporate Networks 我们的合作网络



AI Maker Bootcamp

AI 创客实战营

Build Future-Shaping AI Strengths from the Ground Up

从零开始，打造改变未来的AI实力

Developed based on Alibaba Cloud Academy learning content, this semester-based, project-guided curriculum takes students from the core logic of AI straight into real-world applications. The learning pathway seamlessly integrates Generative AI, Cloud Computing, Edge AI, 3D Printing, and an Entrepreneurial Mindset—moving past empty theories to focus on project-based learning that solves real-world problems. Students will create their own AI digital content and transform their ideas into practical, AI-driven physical prototypes. Additionally, the curriculum incorporates English presentation training every semester to hone students' product launch and pitching skills, nurturing confidence, creativity, and future-ready competitiveness.

本课程基于Alibaba Cloud Academy教学内容打造，以学期制项目为引导，带领学生从底层逻辑入门，逐步迈向实际应用。学习路径贯通生成式AI、云端运算、边缘AI、3D打印及创业思维，拒绝空洞的概念，聚焦专题实作来解决真实问题。学生将亲手创作AI数码内容，并将创意转化为可落地的AI驱动实体原型产品。同时，每学期搭配英文演讲训练，锻炼产品发布与路演的表达能力，培养自信、创意与面向未来的竞争力。



G5-G6

FRIDAY

15:30-16:30 | 2026.9.11-2027.1.15

Part

1

Real-World AI
真实世界AI

Part

2

Project-Based Learning
项目式搭建

Part

3

English Pitching
英文路演

 **Logic** through Experiments

动手实验，理清思维逻辑

 **English Presentation Skills**

英文演讲，锻炼自信表达

 **Think & Speak**

手脑并用，思维表达同步提升

 **STEM.org Certificate**

国际认证 (知识学习)



Sign up now

G5-G6

Course Description 课程介绍

This course teaches students how artificial intelligence works by having them build an AI-powered Eco Bot.

Students learn how AI uses data, recognize issues like bias and hallucinations, understand AI's limitations, and practice ethical use. They compare rule-based systems with AI models and explore how AI can help solve environmental problems. Using cameras, sensors, and Google AI tools, students create an ecology assistant that identifies species, reads environmental signs, monitors wildlife, and answers questions about nature. The course ends with a simulated field mission where students demo a fully functioning AI Eco Scout.

本课程将通过让学生亲自构建一个人工智能驱动的“生态机器人” (Eco Bot)，来学习 AI 的工作原理。

学生将学习 AI 如何使用数据、如何识别偏好（偏见）和幻觉等问题、理解 AI 的局限性并践行合规及伦理使用。他们将对比基于规则的系统与 AI 模型，并探索如何利用 AI 来解决环境问题。通过使用摄像头、传感器和谷歌 AI 工具，学生将打造一个能够识别物种、读取环境标识、监测野生动物并回答自然问题的“生态助手”。

课程最后，学生将在模拟的实地任务中，展示一个功能完备的“AI 生态侦察兵” (AI Eco Scout)。



Learning Outcomes 学习成果

Across the lessons, students will progressively learn to identify real-world environmental problems that AI can help solve, and explain how data quality affects AI behaviour. They will learn to detect and reduce bias in AI outputs, fact-check AI information to catch “hallucinations,” and distinguish rule-based programs from AI systems. Students will connect sensors to AI so the bot responds to physical inputs like temperature or air quality. They will set up a camera and live video feed, then use AI vision to identify plant and animal species from real specimens or images. They will program the bot to read environmental signs (weather, sounds, natural events) and to perform real-time counting and monitoring, similar to a wildlife camera trap. Students will build a conversational, multimodal ecology assistant that answers spoken questions about ecosystems. Finally, they will test everything in a simulated field mission, fine-tune their bot, and present a live demo. As a closing activity, each student will brainstorm a local environmental problem and present a personal plan starting with “If I had an AI Eco Bot, I’ll use it to...”

在整个课程中，学生将逐步学会识别 AI 可以帮助解决的现实环境问题，并解释数据质量如何影响 AI 的行为。他们将学习如何检测和减少 AI 输出中的偏见、核查 AI 信息以捕捉“幻觉”，并区分基于规则的程序与 AI 系统。学生将把传感器连接到 AI，让机器人能够对温度或空气质量等物理输入做出反应。他们将设置摄像头和实时视频流，然后利用 AI 视觉从真实标本或图像中识别动植物物种。他们将编写程序，使机器人能够读取环境迹象（天气、声音、自然事件），并进行实时计数和监测，类似于野生动物红外相机。学生还将构建一个对话式的多模态生态助手，用以回答关于生态系统的口头提问。

最后，他们将在模拟的实地任务中测试所有功能，微调自己的机器人并进行现场演示。作为结课活动，每位学生都将头脑风暴一个本地的环境问题，并提交一份以“如果我有一个 AI 生态机器人，我会用它来……”开头的个人计划。



Sign up now

G5-G6

In this term, students focus on building safe, reliable, and trustworthy AI systems by creating an AI Guardian Bot. They explore AI safety, privacy, emotional awareness, monitoring, and human oversight while learning how to detect and prevent harmful behavior. Students test, evaluate, and refine their AI using ethical guidelines and performance metrics.

在本学期，学生将专注于构建安全、可靠且值得信赖的 AI 系统，并亲手打造一个“AI 守护者机器人” (AI Guardian Bot)。他们将深入探索 AI 安全、隐私保护、情感感知、系统监控及人类监督等核心领域，同时学习如何侦测与防范有害行为。学生更会根据伦理指南和性能指标，亲自测试、评估并持续优化他们的 AI 系统。

Tech Topic 技术主题

Background & Tools Introduction
背景与工具入门
(3 lessons)

Building Prototype
原型搭建
(6 lessons)

Prototype Customisation
原型个性化设置
(3 lessons)



Presentation Topic 演讲表达主题

Business Case Study
商业案例分析
(1 lessons)



Build Your Own Robot!



Hardware 硬件支援



Orange Pi

Software 软件支援



Classes Information 课程资料



Minimum class size
开班人数

6 students
6 人/班



Friday
周五

13 节

Lesson: 1 hour per class, 13 lessons per term
课时：13 节/学期，每节一小时

Sep 11,18 | Oct 9,16,23,30 | Nov 13,20,27 | Dec 4,11 | Jan 8,15

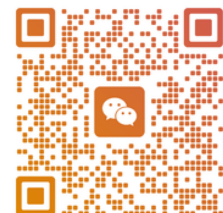
%

¥6,940 /Semester

(Includes RMB 2,000 equipment fee. Equipment can be reused if not damaged.)

¥ 6940元 /学期

(已包含2000元器材购买费，如机器未损坏可一直使用)



Sign up now

Business Case Study (1 lessons)

商业案例分析(1堂)

Lessons	Science Topics	Science Descriptions
1	AI Safety Systems	Students learn how AI safety systems and guardrails work and apply rules to control how an AI responds to users.
2	Threat Detection	Students explore how AI can detect harmful or unsafe inputs and practice designing refusal and warning responses.
3	Context Awareness	Students learn how AI uses conversation history to respond appropriately by adding short-term memory to their bot.
4	AI Monitoring & Logs	Students examine how AI behavior can be monitored over time by reviewing logs to identify errors and patterns.
5	Human-in-the-Loop	Students explore situations where humans must intervene in AI decision-making and implement a manual override system.
6	AI & Privacy	Students learn about data privacy risks and design basic privacy rules to protect user information.
7	Fail-Safe Design	Students design safe fallback behaviors so the AI responds responsibly when errors or uncertainty occur.
8	Emotional AI	Students explore how AI can detect tone and sentiment in language and adjust responses accordingly.
9	AI Decision Trees	Students learn how AI systems choose actions by mapping decisions using simple decision trees.
10	AI Evaluation Metrics	Students evaluate AI performance using basic metrics such as accuracy, relevance, and safety.
11	Ethics Scenarios	Students analyze real-world AI ethical dilemmas and update their bot's rules based on responsible-use principles.
12	Guardian Bot Final Test	Students complete system testing and present a fully functioning AI Guardian Bot.